### COMPONENTS:

- (1) Benzo[b]fluorene; C<sub>17</sub>H<sub>12</sub>;
  [243-17-4]
- (2) Water; H<sub>2</sub>0; [7732-18-5]

# ORIGINAL MEASUREMENTS:

Mackay, D.; Shiu, W.Y.

J. Chem. Eng. Data 1977, 22, 399-402.

#### VARIABLES:

One temperature: 25°C

## PREPARED BY:

M.C. Haulait-Pirson

#### EXPERIMENTAL VALUES:

The solubility of benzo[b]fluorene in water at 25°C was reported to be 0.0020 mg(1) dm<sup>-3</sup> sln and  $x_1 = 9.56 \times 10^{-10}$ .

The corresponding mass percent calculated by the compiler is 2.0 x  $10^{-7}$  g(1)/100 g sln.

## AUXILIARY INFORMATION

#### METHOD/APPARATUS/PROCEDURE:

A saturated solution of (1) in (2) was vigorously stirred in a 250 mL flask for 24 hrs. and subsequently settled at 25°C for at least 48 hrs. Then the saturated solution was decanted and filtered and 50-100 mL extracted with approximately 5 mL of cyclohexane in a separatory funnel. After shaking for 2 hrs. the cyclohexane extract was removed for analysis. An Aminco-Browman spectrophotofluorometer (American Instruments Ltd.) was used for analysis. Many details are given in the paper.

# SOURCE AND PURITY OF MATERIALS:

- (1) Aldrich Chemicals, Eastman Kodak, or K and K Laboratories, commercial highest grade; used as received.
- (2) doubly distilled.

# ESTIMATED ERROR:

soly.  $\pm$  3 x 10<sup>-5</sup> mg(1) dm<sup>-3</sup> sln (maximum deviation from several determinations).

### REFERENCES: